What is claimed is:

1. A cement mixture comprising cupola slag blended with a conventional cement, wherein the cupola slag is ground to a fineness greater than 4,000 cm^2/g.

2. The cement mixture of claim 1, wherein the cupola slag is ground to a fineness greater than 5,000 cm^2/g.

3. The cement mixture of claim 2, wherein the cupola slag is ground to a fineness greater than 6,000 cm^2/g.

4. The cement mixture of claim 2, wherein the cupola slag is ground to a fineness of between 6,000 cm^2/g and 7,000 cm^2/g.

5. The cement mixture of claim 4, wherein the cupola slag is ground granulated.

6. The cement mixture of claim 3, wherein the cupola slag comprises between 32% and 45% SiO_2, between 7% and 17% Al_2O_3, between 29% and 42% CaO, and between 2% and 19% MgO.

7. The cement mixture of claim 3, wherein the conventional cement is portland cement.

8. A cement mixture comprising between 5% and 50% by volume of cupola slag blended with a conventional cement.

9. The cement mixture of claim 8 comprising between 20% and 40% by volume of cupola slag.

10. The cement mixture of claim 9 comprising about 35% by volume of cupola slag.

11. The cement mixture of claim 8, wherein the cupola slag is ground to a fineness of greater than 4,000 cm^2/g.

12. The cement mixture of claim 11, wherein the cupola slag is ground to a fineness of greater than 5,000 cm^2/g.

13. The cement mixture of claim 12, wherein the cupola slag is ground to a fineness of between 6,000 cm^2/g and 7,000 cm^2/g.

14. The cement mixture of claim 13, wherein the cupola slag is ground granulated.

15. The cement mixture of claim 14, wherein the conventional cement is portland cement.

16. A concrete prepared by the process of blending cupola slag, conventional cement, and aggregate.

17. The concrete of claim 16, further comprising the steps of:

(a) adding water; and

(b) curing.

18. The concrete of claim 17, wherein the cured concrete displays a flexural strength greater than 700 psi.

19. The concrete of claim 18, wherein a 72 hour heat of hydration of the cured concrete is less than about 250 J/g.

20. The concrete of claim 19, wherein the cured concrete mortar bar 14 day expansion is less than about 0.2%. .

21. A road surface comprising the concrete according to claim 16.

22. A concrete floor comprising the concrete according to claim 16.

23. A concrete building material comprising the concrete according to claim 16.

24. A mass concrete pour comprising the concrete according to claim 16

25. A method of improving the strength of a cement comprising blending between 20% and 40% by volume of ground granulated cupola slag with the cement.

26. The method of improving the strength of a cement according to claim 25 comprising blending about 35% by volume of ground granulated cupola slag with the cement.

27. The method of improving the strength of cement according to claim 25, wherein the ground granulated cupola slag has a fineness of at least 6,000 cm^2/g.

28. The method of improving the strength of cement according to claim 25, wherein the cement is portland cement.